## CLAIMS

1    1. A method for concealing errors detected in an input audio bit stream, the digital
2    audio bit stream configured as a series of packets, said method comprising the steps
3    of:

4    detecting a first beat and a subsequent plurality of beats in the audio bit stream;

5    defining a first inter-beat interval extending between said first beat and a $(k+1)^{th}$
6    subsequent beat;

7    storing at least a portion of the audio bit stream occurring within said first inter-
8    beat interval;

9    detecting an erroneous audio segment occurring in a second inter-beat interval
10   extending between said $(k+1)^{th}$ beat and a $(2k+1)^{th}$ subsequent beat; and

11   replacing at least a first part of said erroneous audio segment with a
12   corresponding part of said stored digital audio bit stream portion.

1    2.    A method as in claim 1 wherein 'k' is an integer greater than or equal to 2.

1    3.    A method as in claim 1 wherein said stored audio bit stream portion includes
2    at least one packet positioned on at least one said beat.

1    4.    A method as in claim 1 wherein said step of detecting a first beat comprises a
2    step of computing the variance of the audio bit stream using decoded IMDCT
3    coefficients.

1    5.    A method as in claim 1 wherein said step of detecting a first beat comprises
2    the step of utilizing a window-switching pattern.

6.     A method as in claim 1 wherein said step of detecting a first beat comprises a step of computing the envelope of the audio bit stream using decoded IMDCT coefficients.

7.     A method as in claim 1 wherein said step of detecting a first beat comprises the steps of computing the variance of the audio bit stream using decoded IMDCT coefficients and utilizing a window-switching pattern.

8.     A method as in claim 1 wherein said step of storing at least a portion of the audio bit stream includes a step of storing said portion in a circular first-in first-out (FIFO) buffer.

9.     A method for error concealment in a process of digital audio streaming, said method comprising the steps of:

    providing a bitstream;

    detecting at least two beats extracted from said bitstream, said beats extracted from a signal having repetitive sequences; and

    determining an inter-beat interval between said at least two beats.

10.    A method as in claim 9 wherein said signal having repetitive sequences comprises at least one signal from the group consisting of a music signal and an audio signal.

11.    A method as in claim 9 wherein said signal having repetitive sequences includes an error pattern.

12.    A method as in claim 9 wherein said signal having repetitive sequences includes a packet loss from an IP network and a burst error from a wireless channel.

1    13.    A method as in claim 9 further comprising the step of decoding at least a

2    portion of said signal having repetitive sequences.

1    14.    A method as in claim 9 wherein said signal having repetitive sequences

2    comprises at least one element from the group consisting of a rhythm element, a beat

3    element, and a bar element.

1    15.    A method as in claim 11 further comprising the step of replacing said error

2    pattern with music content.

1    16.    A method as in claim 9 further comprising the step of replacing one said beat

2    with another said beat from a preceding bar.

1    17.    A method for error concealment in a process of digital audio streaming in a

2    wireless terminal, said method comprising the step of storing two consecutive inter-

3    beat intervals of the compressed audio bitstream

1    18.    A memory for error concealment in a process of digital audio streaming in a

2    wireless terminal, said memory comprising:

3       storing means for storing a signal history of musical beats of two consecutive

4          inter-beat intervals of the compressed audio bitstream.